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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,761	03/07/2005	Antti Tolli	088245-0120	5829

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EXAMINER

HUYNH, NAM TRUNG

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,761	Applicant(s) TOLLI ET AL.	
	Examiner NAM HUYNH	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 35-38, 46, 47 and 58-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 35-38, 46, 47 and 58-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/9/09 has been entered.

Response to Amendment

This office action is in response to amendment filed on 7/9/09. Of the previously presented claims 1-17 and 35-38, 46, 47, and 58-66; claim 1 has been amended and claims 58-66 have been added.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-17, 36-38, 46, 58, 61, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willars (US 6,597,679) in view of Ovesjo et al. (US 7,181,218), and further in view of Barnett et al. (US 5,428, 816) (hereinafter Barnett).

Regarding claim 1, Willars teaches a method comprising:

providing information (measurements) associated with a plurality of radio access means (base stations) in a communications system to a network element (RNC/BSC) of the communications system, said information based on a plurality of parameters (signal strength) associated with each of the plurality of radio access means for serving a mobile station, and further wherein the plurality of radio access means use different communication methods systems (base stations operate in either a GSM or WCDMA network) (column 5, lines 40-67; column 6, lines 1-24; column 2, lines 25-35);

sending a request (measurement order) to the mobile station to perform compressed mode measurements at the mobile station for selecting a cell based on selected target radio access means, said measurements for selecting a cell associated with the selected target radio access means (column 8, lines 14-32; measurement order

contains cells that are "selected" for the mobile station to measure to make a handover determination).

However, Willars does not explicitly teach that the base stations, or radio access means, contain a plurality of cells. Ovesjo discloses commanding handover between different radio access technologies (title). Ovesjo teaches that base stations may serve three cells (column 5, lines 25-45). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the network of Willars to allow the base stations to include a plurality of cells, as taught by Ovesjo, in order to minimize the number of base stations installed for a desired or given coverage area. Base stations that serve multiple cells are known in the art and would be a network design choice.

The combination of Willars and Ovesjo does not explicitly teach that that the ordering of the radio access means are created with a prioritized ordering and selected based on the created prioritized ordering. Barnett discloses a method and apparatus for mobile assisted handoff. Barnett teaches that cells of a candidate handoff list are assigned a handoff measurement priority (abstract; column 5, lines 34-62). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Dolan and Palenius to include prioritization of the measurement order list, as taught by Barnett, in order to arrange the cells in a preferred order for measurement and handover. This modification allows a handoff candidate to be found faster and more efficiently which would reduce power usage and resources of the mobile station since the most preferred cells are pre selected.

Regarding claim 2, Willars teaches the selection is for handover of the mobile station from a first radio access means to a second radio access means (column 5, lines 60-62).

Regarding claim 3, Willars teaches the first radio access means operates at a first frequency of a radio access technology and the second radio access means operates at a second frequency of said radio access technology (column 6, lines 56-67).

Regarding claims 4 and 7, Willars teaches the radio access technology is code division multiple access (column 6, lines 4-24).

Regarding claims 5 and 8, Willars teaches the radio access technology is wideband code division multiple access (column 6, lines 4-24).

Regarding claim 6, Willars teaches the first radio access means operates in accordance with a first radio access technology, and the second radio access means operates in accordance with a second, different, radio access technology (column 6, lines 4-24)..

Regarding claim 9, Willars teaches the second radio access means comprises a second plurality of cells, and the compressed mode measurements comprise signal strength measurements of at least one of said second plurality of cells (column 6, lines 56-67).

Regarding claim 10, Willars teaches the second radio access means comprises a second plurality of cells, and the compressed mode measurements comprise signal strength measurements of at least one of said second plurality of cells (column 6, lines 56-67), and wherein the compressed mode measurements comprise decoding a

parameter associated with at least one of the second plurality of cells (column 8, lines 56-67; column 9, lines 1-2; mobile station knows the identity of base station its taking measurements on).

Regarding claim 11, Willars teaches the parameter is the base station identification code associated with one of the plurality of cells (column 8, lines 56-67; column 9, lines 1-2; mobile station knows the identity of base station its taking measurements on).

Regarding claim 12, Willars teaches the plurality of parameters further comprises at least one of the following: a real time load, a non real time load, or a signal to interference ratio (column 2, lines 25-35).

Regarding claim 13, Barnett teaches the information comprises a weighting value (priority) (column 5, lines 42-50).

Regarding claim 14, Barnett teaches the plurality of parameters comprise the service priority weight is associated with a suitability of the radio access means in providing a service requested by the mobile station (column 5, lines 34-50).

Regarding claim 15, Willars teaches the network element is a radio network controller (column 5, lines 40-55).

Regarding claims 16 and 17, Ovesjo teaches the information is provided by a common resource radio management (column 6, lines 42-57).

Regarding claim 36, the combination of Willars and Ovesjo teaches selected target radio access means comprises a second plurality of cells (Willars column 5, lines 40-54; Ovesjo column 5, lines 25-45), and Willars teaches the compressed mode

measurements comprise signal strength measurements of at least one cell of the second plurality of cells (column 6, lines 56-67), the method further comprising selecting a handover cell of the second plurality of cells based on a highest signal strength measurement (column 2, lines 25-46).

Regarding claim 37, the combination of Willars and Barnett teaches ordering the radio access means is further based on a type of service requested (compressed mode request) by the mobile station (column 8, lines 28-30) and Barnett teaches prioritization of the measurement list (abstract).

Regarding claim 38, Barnett teaches the plurality of parameters comprise a service priority weight that is associated with each of the radio access means and that comprises a suitability of a selected radio access means in providing a service requested by the mobile station (column 5, lines 20-62).

Regarding claim 46, Willars teaches triggering a handover of the mobile station to the cell selected based on the compressed mode measurements at the mobile station (column 8, lines 14-32).

Regarding claims 58, 61, and 64, the limitations are rejected as applied to claim 1.

5. Claims 35, 47, 59, 60, 62, 63, 65, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willars (US 6,597,679), Ovesjo et al. (US 7,181,218), and

Barnett et al. (US 5,428, 816) (hereinafter Barnett) as applied to claims 1, 58, 61, and 64 above, and further in view of Lemson (US 5,655,217).

Regarding claim 35, In the combination of Willars, Ovesjo, and Barnett teaches the limitations set forth in claims 1, 58, 61, and 64, and Willars teaches that a mobile station sends a compressed mode request to the network base on a measurement order (column 8, lines 14-32), but does not explicitly teach:

determining if performing the compressed mode measurements at the mobile station is successful;

if performing the compressed mode measurements is unsuccessful, selecting a second target radio access means of the plurality of radio access means based on the ordering; and

performing second compressed mode measurements at the mobile station based on the second selected target radio access means, said second measurements for selecting a second cell associated with the selected second target radio access means.

Lemson teaches handover procedure comprising determining if measurement data comprises an excessively high signal level and/or noise bursts. In this condition, the measurements are repeated (figure 5 and column 17, lines 29-59). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Willars, Ovesjo, and Barnett to include verification of measurements, as taught by Lemson, in order to reduce the potential for spurious responses and increase measurement accuracy.

Regarding claims 47, it is further obvious that when the mobile station detects a spurious measurement, as taught by Lemson, it can send another request for another cell to measure since the network has to prepare the transmission slot for compressed mode measurements.

Regarding claims 59, 62, and 65, the limitations are rejected as applied to claim 35.

Regarding claims 60, 63, and 66, the limitations are rejected as applied to claim 47.

Response to Arguments

6. Applicant's arguments with respect to claims 1-17, 35-38, 46, 47, and 58-66 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM HUYNH whose telephone number is (571)272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Nam Huynh/
Examiner, Art Unit 2617